



# The Creative Woman

Quarterly



summer  
1980

## ENERGY IN LIVING SYSTEMS



A quarterly, Governors State University, Park Forest South, IL 60466.

Vol. 4, No. 1 SUMMER 1980

A quarterly published at Governors State University under the auspices of the Provost's Office

© 1980, Governors State University and Helen Hughes

#### STAFF

Helen E. Hughes, *Editor*  
Lynn Thomas Strauss, *Managing Editor*  
Joan Lewis, *Editorial Consultant*  
Suzanne Oliver, *Graphic Designer*

#### GUEST EDITORS

Bethe Hagens  
Joan Lewis

#### ADVISORY COUNCIL

Donna Bandstra, *Social Sciences*  
Rev. Ellen Dohner, *Religion*  
Rita Durrant, *League of American Penwomen*  
Dottie Fisk, *Children's Creativity*  
Harriet Gross, *Sociology/Women's Studies*  
Helene Guttman, *Biological Sciences*  
Mimi Kaplan, *Library Resources*  
Shirley Katz, *Music/Literature*  
Young Kim, *Communications Science*  
Harriet Marcus, *Journalism*  
Elizabeth Ohm, *Library Resources*  
Betye Saar, *Fine Arts*  
Marjorie Sharp, *Human Relations Services*  
Sara Shumer, *Political Theory*  
Emily Wasiolek, *Literature*

---

### Page                      TABLE OF CONTENTS

---

3	Introduction by Bethe Hagens	35	Solar Gingerbread House Recipe
4	Media Watch by Jean Kalwa	39	Update on Soviet Feminist Journal
6	Networking by Ann Weiser	40	Letter From Holland by Helen E. Hughes
11	Poem-THE TURNING AWAY by Margaret Brady		
12	Surviving Technology by Nancy Hamilton		
14	Remedies by Louise Howard		
17	Little Red Hen by Liz Archer		
18	How I Got Into Solar, And Why You Can't Get Me Out of My Greenhouse by Bethe Hagens		
23	Worms VS High Technology by Mary Appelhof		
29	Kirby, The Cadillac of Vacuum Cleaners by Lucie Hagens		
33	On Chickens and Goats by Jean Kalwa		



Cover photograph: Julie Taylor, 1977

## INTRODUCTION:

As you know, Joan Lewis and I are co-editors of this summer issue of The Creative Woman. What lies ahead for you as you read through our issue is something intangible. We've thought and thought of what to call it. We've moved through "Women and \_\_\_\_\_." Ecology; Nature; Technology; Energy; the Environment. All seem such massive and important ideas, so foreboding and ever so slightly beyond grasp. They seem like things that Somebody has written about that we should quote.

Helen got her inspiration for this issue from Rachel Carson, the author of Silent Spring (among other things) who really single-handedly brought the complex fragility of life to the awareness of policymakers. I immediately thought of Harriet Barlow, dubbed among her friends the Queen of Appropriate Technology. This remarkable Washington lady is on so many environment and energy boards, commissions and committees that she can be--at one sitting--a coalition or compromise position onto herself. Joan thought of a special friend struggling with leukemia via an imaginative approach to diet. In Pogo's intimation, we were paralyzed by insurmountable opportunities.

Our inspiration came from the work of a child, the drawing which introduces our magazine to you this season. This simple and genuine statement--"I want to help, too." is one that Joan and I are finding being discussed more and more among the women we meet. It isn't a matter of traditional feminist political activity. It's wondering if the choices that we routinely make in our daily lives really can make a difference. These are the kind of creative women we want you to meet in our issue. Cumulatively, in terms of the economy, we believe that the effects of women's choices about the technologies they use can be a dominant social force and will one day be recognized as

the lifeblood of those systems we call Ecology, Nature, Technology and the Environment.

Bethe Hagens  
July, 1980



Shannon Maher

*From Our Paper, West CAP, Glenwood City, Wisconsin*



JEAN KALWA was a legend at Governors State even before she startled all of us by applying for, and receiving, a Danforth fellowship for graduate studies at the University of Michigan. At 47, she had charmed the socks off virtually every instructor she encountered. She had a chameleon-like ability of finding meaning in virtually anything that was said or would happen. Since leaving GSU several years ago, health problems have dogged her relentlessly. Still, she's only a dissertation away from a doctorate and her essays continue to make all of us laugh and think.

We're printing two essays from Jean. The first was originally written for Acorn, a newspaper that she and Jim Laukes and I edited for several years. Jean served as a kind of cultural interpreter for our audience of laypeople interested in energy technologies. In this essay, MEDIA WATCH of November 1977, she pokes fun at the media environment and at us--for trusting them.

The second (which begins on p. 33 of this issue) is a letter to me. I had told her that Jim and I were thinking of raising animals (chickens, in particular) here in our almost-but-not-quite rural home that lies just outside any village limits.

B.H.

#### MEDIA WATCH

by Jean Kalwa

For years and years, *Popular Mechanics* has been a sort of mainstream *Mother Earth News*--a how-to-fill-the-chinks-in-your-armor manual extolling the rigorous virtues of handymanery to that savvy yankee, the mythic American artisan. Overall, the magazine accomplishes its task remarkable well by providing "tips," advice and elaborate diagrams which explain exactly how to repair a toilet, tune up a car or even build a house.

Not quite so obvious is the sophisticated way *Popular Mechanics* and sim-

ilar magazines spread a message which is exactly the opposite of the above. They strongly reinforce and support the prevailing economic system, which, in its itch to sell us its shrink-wrapped, rapidly obsolescing objects, would erase forever the role of the canny tinkerer and mute his boast that he can fix anything with spit, baling wire and his own commonsense-based cleverness. Next time you pick up a *Popular Mechanics*, notice how much space is devoted to short descriptions of new products, to say nothing of whole articles which purport to "analyze" differences between automobiles, trucks or appliances. Crabby old party that I am, I suspect that much of this "hard" information springs full-blown from the public relations departments of the firms which manufacture the items. To be able to send out two conflicting messages at the same time successfully is a very neat trick indeed, one worthy of the talents of Evel Kneivel.

In recent years, *PM* has not failed to take note of alternative energy concerns, and the October 1977 issue is no exception. The lead article is a lavishly-illustrated piece on development of new machinery designed to increase U.S. coal production, deep-mining (as opposed to strip-) division. According to the article, coal represents 90% of the U.S. fossil fuel resources and President Carter has called for production to double by 1985. Perhaps you'll be amused by the author's style in his opening paragraphs before he gets down to the specifics of these new mining techniques. Machines "rip down" coal; they're "clanking, roaring, humming battalions of weaponry." They make a "rhythmic thumping and grinding racket." It's an excellent short course in how to make an industry that's been responsible for a good bit of human misery over the centuries seem as sexy and violent as a TV thriller.

If only they could figure out a way to make the more pacific virtues of solar energy seem as dangerously allur-

ing as the fossil fuels the sun takes so long to produce! Another article in the same issue surveys a group of solar home owners throughout the nation. It's adequately written, if a bit ho-hum, and well-illustrated. However, learning that somebody saved \$40 a month last winter does not evoke quite the same excited response as reading about a "bunyanesque monster" which chews coal "out of here better than ten, maybe twelve tons a minute."

Those interested in appropriate technology take their hardest lumps this month from a recent issue of *Galaxy Science Fiction*. In his August column, J. Pournelle reports on this year's meeting of the American Association for the Advancement of Science with an interesting mixture of glowy enthusiasm sicklied 'oer by gloom and despair. On the one hand, Pournelle can't wait to shave "with power produced by deuterium-tritium fusion, seven years before the century ends," and on the other he's depressed because \$80 million for fusion research was cut from the current Carter budget. He goes on to discuss the presence of appropriate technology representatives at the same meeting, whom he characterizes as a humorless bunch who show fuzzy slides which display ugliness as if it were beauty, sit "enraptured as if in church," and want, above all else, to bring back the privy.

Maybe so. There's no denying that many folk interested in alternative technologies are motivated by religious as well as strictly pragmatic impulses. (I wish we had more wild-eyed fanatics to keep things from getting dull.) However, I think I'll keep my money on those whose claims are relatively modest, like "our first principle is to do no harm" (The New Alchemists). Mr. Pournelle tends to such feverish enthusiasms as "it's (fusion) in time to save the world," and his prose absolutely throbs with feeling when he talks about the need to hand down even more complicated technological goodies to the next

generation.

For those of us who only sit and read rather than muck about in the garage cleaning our spark plugs, there's the venerable *Atlantic Monthly* from Boston. "Tinkering with Sunshine--the Prospects for Solar Energy," by Tracy Kidder is the October cover story. Kidder interviews a number of people who have been deeply involved in developing solar energy for years to present a well-organized overview of the current solar scene for the intelligent but so-far-uninformed layperson. Kidder's conclusion is that the solar situation is about at the stage of the auto industry when Henry Ford introduced the Model T. One hopeful note: Kidder makes sure the affluent readers of this magazine learn how little the U.S. government is spending on developing solar options in comparison to allocations for nuclear energy.

It's the hard-boiled ingenuousness of *Advertising Age* that makes it so hard to resist. I mean, do they care about being outrageous? That's their business, right? So why not run a full-page ad from *Mother Earth News* (four color, with trendy type set ragged-right and stylishly reversed out of black). The ad tells potential advertisers the precise demographic makeup of its "responsive and responsible" readership. Is your median age 32.6? Is your median income \$18 thousand? Are you trained in professional, technical or sales occupations or the skilled crafts? Then you're a typical *Mother Earth News* subscriber. This entitles you to be a pigeon for any and all advertisers this highly successful "counterculture" publication can attract.

Last item for the month: The October 20 *Rolling Stone* presents another installment from Howard Kohn's forthcoming book on the Karen Silkwood case. Have I read it? Not yet. I'm scared enough already. I'm going to the movies.

B.H.

The term "network" is heard with such frequency today that one can hardly doubt that a new form of communication has lodged itself in our social habits. But it is almost as nebulous a concept as it is pervasive.

In the first article in this section, Ann Weiser, Ph.D. in Linguistics from the University of Chicago, takes a crack at explaining networks at a very useful, commonsense level. Following her essay is a reproduction of several pages from Ann's personal networking book which we encourage you to xerox and try for yourself.

In the second section, moving from the general to the specific, Jill Kunka describes her informal networking efforts as Solar Energy Outreach Coordinator at the Illinois Institute of Natural Resources. Since energy policy is so largely determined by men, it is understandable that energy is not seen as a women's issue. But by networking, Kunka has clearly proven otherwise.

And finally, we have reprinted the network registration form from the National Center for Appropriate Technology. Why should you respond? This is best stated in one of the Center's recent publications, Something Old, Something New, Something Borrowed, Something Due: Women and Appropriate Technology. Editor Jan Zimmerman says: "To implement any technology without considering its impact on women or guaranteeing their participation in its development would condone sexist practices of existing problems of technological development." While the booklet (available for \$1 from NCAT, P.O. Box 3838, Butte, MT 59701) is replete with observations by women in very different kinds of relationships with technology, the best part of the booklet is a networking directory of hundreds of women nationwide involved in projects which actively integrate women's

## NETWORKING

by Ann Weiser

Networking is part of a revolutionary change taking place in the organization of our world. Not only are institutions changing, but the very form of institutions is changing, and the way in which each of us can affect, modify, participate in and transform the institutions of our world is undergoing profound change.

In the old world, each of us had little control over most of the institutions that affected us. Control of the old type of institution was from the top down, and most of us were not at the top. Governments, businesses, universities, and families, all were controlled by a kind of top-to-bottom power flow, where those above controlled those below, and only a few were above, many below. Parents controlled children, bosses controlled workers, administrators controlled teachers and teachers controlled students. Most of one's life, in most of one's relationships, one was controlled, not controlling. And even when we were the controllers, we were impoverished by the essential loneliness of unequal relationships--"uneasy lies the head that wears the crown," they say, and ultimately neither giving orders nor taking them is as satisfying as equality.

The new world has institutions of an entirely different shape, with power and control flowing up as well as down, so that it will eventually cease to make sense to talk of "up" or "down" at all. In the last ten years, students have rebelled against their teachers, and teachers against their administrators. Children have asserted their rights against the control of their parents, and wives have stopped promising to



obey their husbands. Patients have even banded together against doctors, though the tyranny of the medical doctor has been perhaps the most absolute which our society has known.

Also in the last ten years, alternative institutions have sprung into being, with structures very different from the old authoritarian model. Food co-ops, community projects, learning exchanges, worker-owned factories, all exhibit the new form, with decisions being made and carried out, not by the group and for the group, (as in communism, another old-form way of structuring authoritarian control,) but by individuals aware of their cooperative connections with other individuals.

We can begin to call these new institutions "networks". A network is a group of people connected by lines of two-way communication and organized around a particular function or purpose, without any one person or subgroup exercising central control. There is no geographical restriction on networks; members of the same network may be separated widely in space. This kind of separation, this freedom from the bondage of proximity, is made possible by the inventions of the electronics age: the two-way radio, the communications satellite...and above all, the ubiquitous telephone. With surprisingly few exceptions, it is possible to dial any telephone from any other telephone. (A Chicago newspaper carried a story this winter about a man who decided to call the Iranian embassy and talk to one of the hostages. After a six-hour wait while the overseas operator arranged for the call, he got through, and had a short conversation with a hostage who said they were unharmed--a fact which the rest of the country was desperately trying to find out.)

The telephone system becomes both the means and the metaphor for the multi-sourced, multi-directional flow of communication and power within

the new form of institution. The connection between any two telephones is a potential link in one or more networks, and becomes an actual link when the people at either end know each other's phone numbers and enough about each other to make connection possible. The connection may be used frequently or rarely, but once it is formed it remains a network link.

The activity of forming and maintaining these links is called networking. Each person may be a part of many networks. Compared to the old system, where just a few connections were possible, the number of potential connections is mind-boggling. (Count the number of telephones, and then multiply that number by itself.) Even more profound is the difference in the quality of the connections. Instead of creating relationships which are defined by one person's control over the other, they connect people as co-operators, opening up a potentially infinite flow of creativity, ideas, and pleasure. A third distinction between the new systems and the old involves the activity of networking itself. In the old context, a person rarely had the opportunity to initiate their connection or create their place within an institution; their membership in groups as well as their position within them was largely given in advance, unchangeable. Networking, in contrast, is the active forming of connections, the active choosing of which networks one will participate in. In doing networking, in dealing with the participatory forms of the new age, one is taking charge of one's own life without dominating or exercising power over others' lives. If the web of our functional connections makes up our world, then when we do networking--when we call the people who interest us and exchange information or make connections for mutual activity--we are doing much more than merely "calling people on the telephone." We are essentially creating our own world.

(For those who like thinking about the changes in work, thinking and communications presently taking place, I highly recommend Alvin Toffler's The Third Wave, (New York: Wm. Morrow & Co., 1980.) He provided some of the seeds and inspiration for my thinking.)

WOMEN IN SOLAR ENERGY  
by Jill Kunka

Illinois' energy agency, the Institute of Natural Resources (INR), does not officially provide energy information services for women, but its ad hoc Women and Energy Program is going strong.

Last December as Solar Energy Outreach Coordinator, I distributed 5,000 copies of a brochure explaining that "energy is a woman's issue". Since then, requests for information have flowed into INR from hundreds of individual women and major women's groups, including the American Association of University Women and Illinois Federation of Women's Clubs.

National studies have shown that women have a distinct concern for environmental protection and safety, and are slightly more favorable toward energy conservation than are men, but many women still lack the confidence to become effective in energy matters--whether that means weatherizing the apartment or pursuing a technical career.

In response, I've drawn together resource lists, reprints of articles on Women and Energy, a home conservation guide for women and suggestions on how women's groups can adapt existing INR resources (including a Speakers Bureau) to their own needs.

A list of Women and Energy contacts nationwide has also been compiled. Some excellent work is being sponsored by several groups, including Consumer Action Now (CAN), a New York-based energy and environmental organization, Rural American Women, and groups affiliated with Women in Solar Energy (WISE), an informal national women's coalition. Representing an opposite point of view, Nuclear Energy Women (NEW), funded by the Atomic Industrial Forum, has also recognized that the "silent majority" of women can affect national energy policy. Their activities are featured in the June issue of Ms. Magazine. Many women's energy groups, their activities, and publications can be accessed by contacting me at the Institute of Natural Resources, 325 West Adams, Springfield, Illinois, 62706. Phone: 217/785-2432.

If enough women indicate an interest in receiving and sharing information and views on energy, INR's "ad hoc" network may finally become an official program.





## "Ann Weiser's Networking Book"

*You have a resource system  
made up of all the people  
you know.*

*Each person you meet  
becomes a part of your  
network.*

*The Networking Book is  
designed to help you  
build that resource  
system, consciously think  
about the connections, and  
use them.*

NAME \_\_\_\_\_

Phone (s) \_\_\_\_\_

\_\_\_\_\_

Business \_\_\_\_\_

\_\_\_\_\_

Interests \_\_\_\_\_

\_\_\_\_\_

Other Connections \_\_\_\_\_

\_\_\_\_\_

People in Common \_\_\_\_\_

\_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

We met: Date \_\_\_\_\_

Place \_\_\_\_\_

Circumstances \_\_\_\_\_

\_\_\_\_\_

Would recognize my name? \_\_\_\_\_

Ideas for hookups \_\_\_\_\_

\_\_\_\_\_

History of Contact:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# Networking

## NCAT Mailing List Inquiry

Organization: \_\_\_\_\_  
 Attn. (Name): \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City/State/Zip Code: \_\_\_\_\_  
 Phone: (     ) \_\_\_\_\_

- ☐ Check box if new listing  
☐ Check box if address has changed  
☐ Address on label is correct

If you would like to participate in NCAT's mailing list networks, please check the appropriate boxes in each column and mail to NCAT

ORGANIZATIONAL DESCRIPTION	MAIN ACTIVITIES/SPECIAL PROGRAMS	AREAS OF INTEREST & EXPERTISE
<input type="checkbox"/> Federal Agency (not CSA) <input type="checkbox"/> U.S. Congress <input type="checkbox"/> CSA National/Regional Office <input type="checkbox"/> State/Local Political Office <input type="checkbox"/> Board of Education <input type="checkbox"/> Department of Social Services <input type="checkbox"/> Agriculture Information Center <input type="checkbox"/> Energy Information Center <input type="checkbox"/> State Energy Office <input type="checkbox"/> Energy Extension Service <input type="checkbox"/> A.T. Information Center <input type="checkbox"/> A.T. Organization <input type="checkbox"/> A.T. Newspaper/Magazine <input type="checkbox"/> NGO (dev. assistance/church group) <input type="checkbox"/> CAPs/CAAs <input type="checkbox"/> Other CSA-Sponsored Group <input type="checkbox"/> Minority Organization <input type="checkbox"/> Native American Organization <input type="checkbox"/> Public Education/School/University <input type="checkbox"/> Training Facility/Trade school <input type="checkbox"/> Educator/Teacher _____ grade level <input type="checkbox"/> Recycling Center <input type="checkbox"/> Food Co-op <input type="checkbox"/> Producer Co-op <input type="checkbox"/> Consumer & Buying Clubs <input type="checkbox"/> Farmer <input type="checkbox"/> Resource Center/Library <input type="checkbox"/> Bookstore <input type="checkbox"/> R & D Center <input type="checkbox"/> Newspaper <input type="checkbox"/> Architect <input type="checkbox"/> Architecture/Construction Magazine <input type="checkbox"/> Public Interest/Consumer Group <input type="checkbox"/> Individual/Business <input type="checkbox"/> Micro/Mini Computer Club/Owner-Operator <input type="checkbox"/> Women's Organization (note: if more than one listing pertains, note main organization affiliation with "1")	<input type="checkbox"/> Info Dissemination/Distribution NETWORK <input type="checkbox"/> Produce Newsletter/Periodical <input type="checkbox"/> News Service <input type="checkbox"/> Info. Center (write-in) <input type="checkbox"/> Info. Center (phone-in) <input type="checkbox"/> Clearinghouse/Distributor <input type="checkbox"/> Retail Book Sales <input type="checkbox"/> Traveling Exhibits/Seminars <input type="checkbox"/> Training Programs <input type="checkbox"/> Community Development Programs <input type="checkbox"/> Technical Assistance <input type="checkbox"/> Consulting Services <input type="checkbox"/> Funding Assistance <input type="checkbox"/> Ongoing Research Projects <input type="checkbox"/> Operating Demonstrations <input type="checkbox"/> Computer-Based Information Exchange <input type="checkbox"/> Other _____ _____	<input type="checkbox"/> Solar Heating (Space/water) <input type="checkbox"/> Solar Power (electricity/torque) <input type="checkbox"/> Cooling & Refrigeration <input type="checkbox"/> Wind Torque <input type="checkbox"/> Wind Electrification <input type="checkbox"/> Hydro Power/Water Resources <input type="checkbox"/> Biomass & Wood Fuels <input type="checkbox"/> Biofuels: Methane/Alcohol <input type="checkbox"/> Agriculture & Farm Mechanization <input type="checkbox"/> Greenhouses & Gardening <input type="checkbox"/> Health & Nutrition <input type="checkbox"/> Food Processing <input type="checkbox"/> Food Marketing (e.g. Co-ops) <input type="checkbox"/> Organic Waste Management/Composting <input type="checkbox"/> Building Design <input type="checkbox"/> Weatherization & Conservation <input type="checkbox"/> Housing Access Programs <input type="checkbox"/> Rehabilitation & Historic Preservation <input type="checkbox"/> Community & Economic Development <input type="checkbox"/> Land Use Planning <input type="checkbox"/> Transportation & Vehicle Retrofit <input type="checkbox"/> Recycling & Waste Recovery <input type="checkbox"/> Volunteer & Employment Opportunities

RETURN TO: National Center for Appropriate Technology, Attn: F. Wiebe  
 Box 3838, Butte, MT 59701

☐ I would like to receive information on grant opportunities.  
☐ I would like information on bulk rates for NCAT publications for resale or network distribution.  
☐ Please send NCAT publications list

For full participation in NCAT's information networks, we encourage you to subscribe to *A.T. Times*, the national newspaper on appropriate technology developments, issues and opportunities.  
 12-issue subscription = \$10.00  
 4-issue trial subscription = \$3.50  
☐ Please enter my subscription to *A.T. Times* for \_\_\_\_\_ issues. My payment is enclosed



An Outdoor Event Sponsored by:  
**OUTLOOK**  
 Governors State University  
 Park Forest South, IL 60466  
 Phone: 312/534-5000 Ext. 2545

THE TURNING AWAY

the road takes my  
bike with it,  
only the wind  
fights this departure  
from civilization:  
it is a Southern Illinois autumn

I stop by a twisted metal fence  
that holds back the cows,  
push my kickstand  
down:  
hello how are you--  
no reply...  
I am swayed by every car  
that races by  
but the animals seem not to notice

some birds swoop and  
dart  
above the cows,  
adding to the scene:

a calf lies in the grass  
while its mother hovers,  
gently licks it:  
from the gravel roadside  
I can see the big, pink, mother's  
tongue as it  
flip-flops  
back and forth  
against the calf's black hide

another calf  
stands and stares at me  
then finally turns away,  
unmoved:  
as dried leaves of corn  
turn away and move up,  
into the wind,  
imitating the birds:  
as I turn away from myself  
in this ride:

there is too much going on here,  
too much movement,  
too much life:  
too much that I cannot be a part of

the plane overhead  
signals my return  
to the road  
to the incessant movement  
to rubber on asphalt  
to eye meeting tree  
meeting cornfield  
and back again

like a car's windshield  
my glasses are hit  
by tiny insects  
as I ride

the sky is never the same:  
each time I look up it's  
confused and  
seems ready to break open,  
gushing forth uncertainties.  
it moves back and forth between  
sun and gray,  
until it finally decides  
on a subtle mixture of the two

the land itself  
wavers between green  
and golden:  
the timothy hay,  
dry and tall,  
overwhelms whatever  
green grass remains

I stop again,  
this time on a side road and,  
perched on a mound of gravel  
overlooking a barren cornfield,  
I see a leaf twitch in the sun  
and watch  
as a caterpillar slowly  
emerges  
and creeps along his own  
self-determined trail

...all things in flux  
all things turning away  
beating a path to their center,  
riding down a country road...

I return to my bike,  
the wind,  
the sun on my back,  
and the slow, slow  
turning away  
of the year into winter  
and the self into self

by Margaret Brady





Sharon Rank, 1980

Nancy Hamilton's most endearing quality is, I think, her ability to ask the obvious questions and elicit a remarkable range of answers. Nancy has lived on a farm with her husband Alan (and four grown children, now off to California and Greece) for the past thirty-five years or so, and she has been active in scouts, the Y, the unitarian church, the local bike club and virtually all of the family institutions which make up the community in which Governors State is located. In this essay, she tries to convey the way new communities of spirit can be nurtured in the out-of-doors.

B.H.

#### SURVIVING TECHNOLOGY MAY NOT BE A SIMPLE TASK

by Nancy Hamilton

It may not be a simple task to survive technology. It's getting to be a very interrelated world. But I do know a lot of people I would bet on to survive, with whom I have spent memorable times outdoors--not hunting, necessarily or pursuing a golf ball, or in gasoline driven vehicles. The outdoor pastimes I recall were inexpensive, democratic, sociable, inspiring, fun and re-enforcing of the psyche.

For instance, one of my best interracial experiences was in an "established" camp (a camp to live in



day and night for a short time). All of course did not go perfectly. Does it ever? But probably everyone involved had the kind of time he or she never quits talking about.

The lessons from that experience have lasted a long time. We learned that a group of people sometimes survives despite all other predictions. One group wandered off on a hike and unknowingly drank from a dangerously impure creek. Somehow they lived, despite the feeling of desperation among the others back in camp, and because of the love and support of those pulling for them.

That was serious. Then there was the fun, such as finding out that we could produce arts and crafts on peanuts (not the kind in the shell). Weaving place mats from corn husks for example was a revelation both to the adult in charge and the weavers, and it was free. Another kind of fun, also free, was singing.

There were also skills to be acquired. Compass work requires some knowledge of reading and numbers, but not a lot. Mostly it takes courage and a type of aggressiveness that can be acquired--and the ability to cope with unpleasantness encountered.

There are snakes, insects, poisonous plants, holes in the ground, people, quicksand. Some, at least, must be dealt with sooner or later. Some people cope; others don't. It is a revealing experience to face the outdoors with those thought to be friends and those presumed enemies, and see who is really whom.

Have you ever played what the British call wide games? It's a kind of on-the-spot learning that can be fun. Some require lots of skill; others can be very simple. All wide games are not alike, but in essence it is a team approach to learning skills which involve covering a lot of space. Often there are several teams varying in numbers

from perhaps ten to fifteen persons. Each team has a score card, and follows trails identified by color. For example, a yellow team would start from the beginning place (where all teams begin) and follow what might be yellow beans laid earlier. These would lead to the first "station". At that station each person on the team is scored on their performance of a particular skill. If anyone on the team does not know how to perform that skill, they must learn on the spot--before the team can move ahead. The team then moves to the next station by following a yellow trail of perhaps raffia or yarn scraps. Here everyone performs a new skill and the team moves on. Required skills might include identifying birds nests, using a knife, making a useful object from twigs, etc. At one station usually a topic is assigned around which the team must perform a skit at the end of the day. Topics, skills and scoring can be adapted to a variety of purposes. In the course of a few hours as many as fifty or sixty people can prove their skills and have the fun of taking part in the game. During rather hair-raising situations skills of life-dependent seriousness have been taught.

Wide games, are great experiences in sociability, group encounter, skill performance and physical testing of participants.

Special skills, like sailing, canoeing, walking and cross-country skiing are all cheap or can be. Primarily they depend upon the developing of certain muscular and mental knowledge, but not much on money or clout.

The democratic thing about the outdoors is that everyone starts from almost the same point--zero. Rich or not you may be the one who can't find your way around a compass course, and gets lost--or the one who finishes first with the scavenger hunt.

There is something about the outdoors that changes people, mostly

for the good. The outdoors is immediate, and facing the immediate seems the only way to learn survival. Worry a little, but mostly face up to NOW. This is the moment in which we live. If use of the outdoors is free, shows belief in others, uses the present place and time well, that is reason for celebrating. To heck with the technological era.

---

LOUISE HOWARD was born in rural Mississippi a few years after World War I ended, met and married her husband Robert, and brought her family to Chicago after WWII to try city living. After a few years she decided it wasn't worth it. She felt that time spent with their children, teaching them to support themselves off the land, would be more valuable than the money she could bring in from a job at a garment factory. Early in the 1950's they discovered Pembroke, a rural mostly Black settlement to the east of Kankakee, Illinois. At the time, the area was virtually undeveloped. Forest fires were rampant, there was no water or electricity, and only a few homes were actually built. But this was the kind of land that Louise and Robert believed they could survive on, and so they bought their five acres and have been there ever since.

The story that can be told about the Howards, and their contributions to community well-being in Pembroke, is almost endless. Today, nearly thirty years later, the little Township remains in much the same shape it was when they arrived--still no central water or sewage treatment. Real material poverty is evident everywhere. And yet, there is still a kind of knowledge alive--mostly in the older people--about how to stay healthy. Whether this is a remedy, a tonic, or a way to grow food, this is knowledge that has been tried for long years, and seems to be true. The recipes below are ones that Louise has always used and that you, too, may value.

## LOUISE HOWARD'S REMEDIES

**HOMEMADE MOSQUITO OIL** It keeps away mosquitoes, chiggers, and all the things that bite you in the woods. It stops the itching. You always put it on before you go out. You need 1 pint of mineral oil or baby



oil or olive oil, and a 2 oz. bottle of eucalyptus oil. Pour away 2 oz. of oil from the pint, and add the 2 oz. of eucalyptus oil to the bottle. Turn the bottle upside down for overnight, get up the next morning, shake it up, and you're ready to use it.

"I make it every year. It's very good for your skin. It'll do a whole big family for a year, and it's much cheaper than Off or what you call insect repellent. Lye soap will also keep away the poison from bites and things like poison ivy. You either wash with it, or you rub it on the

B.H.



bite. It kills the poison before it gets into your bloodstream. If you're washing with it, you should use a little Vaseline to keep your skin soft."

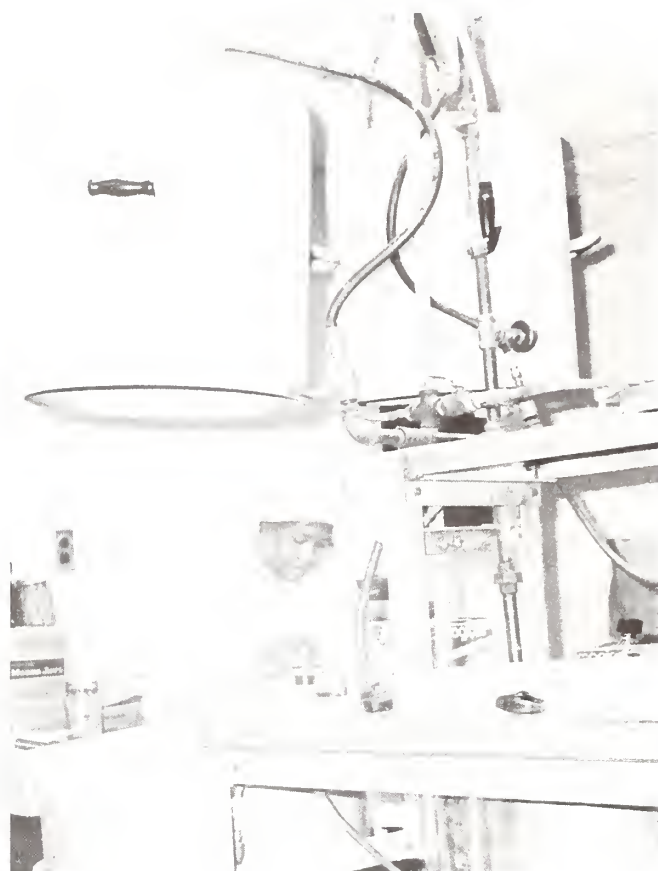
**SPRING TONIC** It cleans you out and keeps you from getting sick through the summer--fevers and stuff. Everybody needs to get cleaned out. The tonic is in two parts.

Part One: Take a place knife and heap up on the tip some sulfur--about 1/8 tsp. Mix the sulfur into 1 tsp of either blackstrap molasses or sorghum molasses. Stir it up with a toothpick. You stir it in real good. You mix this up and take it every morning for three mornings.

Part Two: Wait three days. Then you take about 1/4 lb. of may apple roots (either dry or green). Use 1 pint of water, and boil it down to about 1/2 cup with the May apple roots in it. (Remember to wash the roots). Remove the roots, so you have about a half cup of liquid left. Put it in 1/2 pint of whiskey. You take 1 tbsp. every morning before breakfast for three mornings. Then you're clean.

"It keeps you from breaking down with malaria, chills and fever, and such. It works the bile and poisons and stale food out of your body. It filters out the little intestines. Honey, I know you haven't cleaned the little intestines of pigs, but if you had, you'd know what I'm talking about. You take it early in April, and you have a glass of water behind it because that whiskey is strong."

**ASAFETIDA PREVENTITIVE** You use this for babies and kids when they start to school and are exposed to the chicken pox and other sicknesses that children get. Asafetida is a gum you buy at the drug store. You

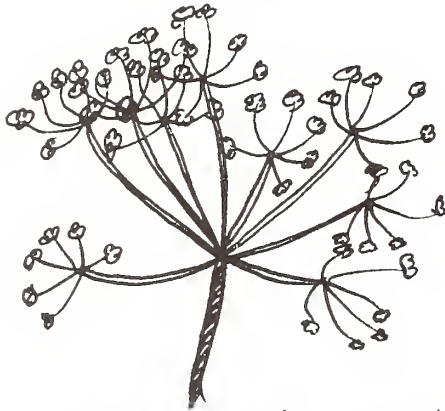


get a little piece of cloth, wrap the gum up in it, and sew it tightly shut with black thread. Then you use that black thread to hang it around the child's neck. You can cut it long enough that it will hang down inside the blouse and no one will see it. If you find #8 black thread, cut you a piece and wear it around your neck. It prevents common throat diseases. (I asked Louise if she thought this was why girls wore black velvet ribbons around their necks. She said maybe so, but they had never had money for any more than thread!)

You can also make this up with whiskey if the baby is colicky or if you have a stomach ache. You put one little block of asafetida in 1/2 pt. of whiskey. It's very strong. You just dip a toothpick into it and stir your glass of milk with the toothpick. That's enough.

For those of you curious, . . .

AS A FET' I DA A gum resin having an alliaceous (like garlic, onion, leek) odor, obtained from the roots of several species of the umbelliferous genus *Ferula* and used in medicine.



A compound umbel



One day, the Little Red Hen decided that the old place needed a solar greenhouse.

"Who will help me plan it?" she asked.

"Not I," said the Cow, "It won't work anyway."

"Not I," said the Sheep, "There's plenty in the garden."

"Not I," said the Pig, "It's not in the master plan."

"Don't be silly," said the Goose, "I'm not sure I believe in the sun, anyway."

"Then I'll plan it myself," said the Little Red Hen. She whipped out back issues of some popular magazines & went to work.

Soon it was time for construction to begin.

"Who will help me build a solar greenhouse?" asked the Little Red Hen.

"Not I," said the Cow, "Are you some kind of nut?"

"Not I," said the Sheep, "There's plenty in the garden."

"Not I," said the Pig, "What's your zoning anyway?"

"And get blisters?!" shrieked the Goose.

"Then I'll build it myself," said the Little Red Hen & she did.

Building by herself wasn't easy, especially with no one to hold the other end of the board. But soon it was finished.

"Who will help me set up the Solar greenhouse?" asked the Little Red Hen.

"Not I," said the Cow, "I'm going to Florida for two weeks."

"Not I," said the Sheep, "There's

still plenty in the garden."

"Not I," said the Pig, "And where's your building permit?"

"Honestly," said the Goose, "That could ruin my nails."

"I had a feeling..." said the Little Red Hen. "This too I shall do myself." And she did.

Later, L R H tried one more time. "Who will help me tend the solar greenhouse?" she asked.

"Are you still at that?" said the Cow, "Anti-establishment revolutionary!"

"Not I," said the Sheep, "I'm too busy canning."

"Not I," said the Pig, "Have you filed an Environmental Impact Study?"

"And be a laughing stock?" said the Goose.

"I might have known," said the Little Red Hen. And she tended the greenhouse herself.

Soon winter came. Fodder & cracked corn got boring, but the Little Red Hen ate her salads, and cackled.

But she shared her bounty. The animals feasted on fresh tomatoes & lettuce at Christmas. They wallered in strawberries on Valentine's Day. On the first day of spring, they relished cucumbers, onions, & squash.

The Little Red Hen had her converts! When the outdoor garden was well under way, they all cleaned their solar greenhouse & began their plans for the next winter. Never had they been happier.

Then the Farmer, the "smartest" animal, bulldozed their solar-greenhouse for a new machine shed.



HOW I GOT INTO SOLAR, AND WHY YOU  
CAN'T GET ME OUT OF MY GREENHOUSE

by Beth Hagens

I just looked out my window to see the garden sunflowers all uniformly poised just south-of-west to capture the last bit of sunlight for the day. It's a cycle that never fails to amaze me--now that I see it, that is. See those great graceful golden heads eyeing the sun as it moves through the sky. The good old sun.

It used to be really a rather uninteresting thing to me. I don't know whether it was that there was always sunshine where I grew up in southern California, or that I thought you needed squared streets to really be able to tell directions. Or that air conditioning literally made summers bearable for all the mothers and children who had to stick it out together because it was too hot to go outside. I only discovered several years ago that the mountain range I grew up on is aligned east/west and not north/south, and that is why the sun always used to set in the south!

Whatever it was, when I finally understood that "solar energy" really meant learning about and living by the properties of the sun, I was hooked. I became a myth-crazed sunworshipper (I thought in my months of deepest skepticism). It was so easy it was boring (I thought in my months of greatest pride). In effect, solar became a concept through which I was exercising all of my feelings. Feelings of "good earthiness," say--my feelings of religion. Feelings of competence--I finally had an organizing framework around which to evaluate my actions as a consumer. Solar, and the network of people who value this symbol of technology and humanity, are my own indicators that, despite politics, there is another more promising universe out there that we can survive in.

Doesn't this sound mystical? I'm almost embarrassed to write it. But there is something like this in solar energy and in the many small technological industries springing up to develop energy, food, and products with the limits and potential of the sun in mind. They aren't all out there trying to produce solar electricity to run generators. The ones I'm talking about are doing everything from selling organic vegetables, leading out-of-doors games, and raising worms to building greenhouses, formulating state energy policy, and helping to structure a national presidential platform for Barry Commoner and the Citizens Party. They are trying to integrate human needs with technologies that do this in efficient, elegant, and interesting ways. In ways that will respect the needs of others all over the world.

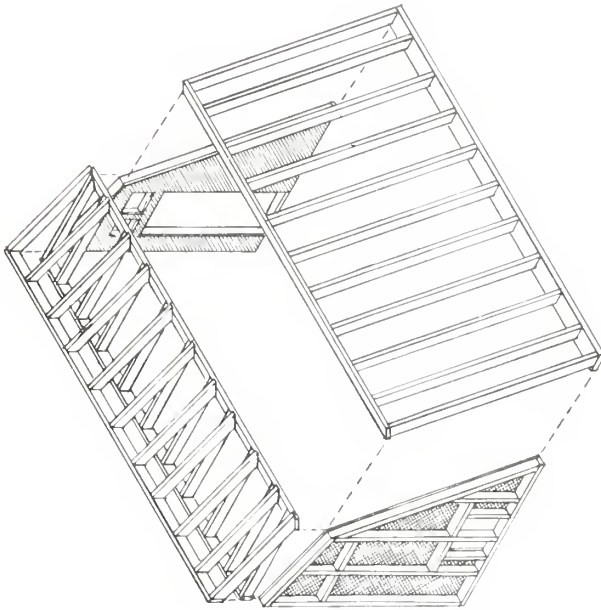
Pretty big order, eh?

Well, maybe this is what makes the women's part in the solar energy situation different. We really do believe that our small contributions will eventually add up. Or as my friend Susan Youngdahl once said, "a few drops in a bucket aren't much, but one day the bucket will be full." Or remember the story about whether or not you'd rather have \$100 or a penny, then two pennies, then four pennies and so on for a month? Solar is growing exponentially, but not in a line, in a florescence. Flowering.

This is why I am so entranced by solar greenhouses. The metaphor of blooming, of warm moist air, of fresh smells, of soft and crunchy textures. Flowers. Vegetables. The greenhouse in winter. I can have it if I will build it and maintain it.

I didn't learn quickly that I could have it. I didn't believe that I could cut a hole in the wall of my house, or build anything more sophisticated than a bookshelf or desk, or raise anything but houseplants. And it took many years to convince me otherwise. This is where community

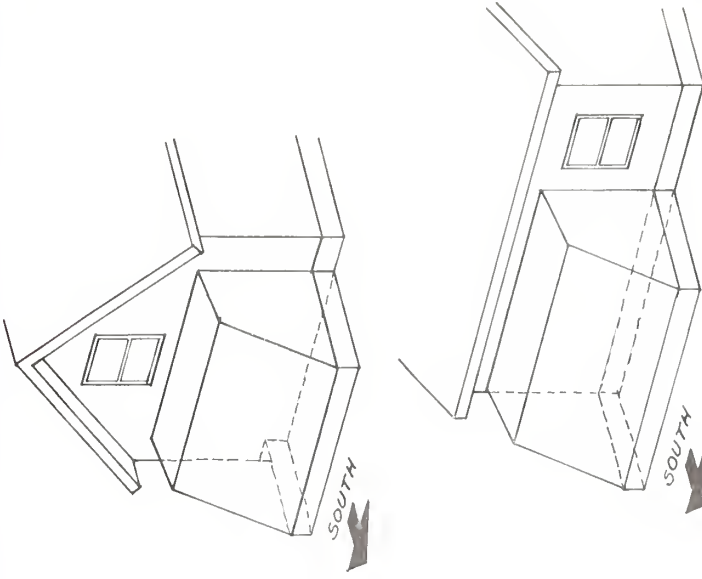
(continued on p. 20)



# 1 FRAMING ASSEMBLY NO SCALE

## CONSTRUCTION SEQUENCE

1. CONSTRUCT BOTH END WALL FRAMES, PLACE IN POSITION & SHEATH AND/OR GLAZE INTERIORS
2. CONSTRUCT ROOF FRAME & PLACE IN POSITION
3. CONSTRUCT SOUTH WALL FRAME & PLACE IN POSITION
4. SHEATH & GLAZE STRUCTURE AS DESIRED  
(ACTUAL DIMENSIONS & CONSTRUCTION DETAILS ARE DETERMINED BY SPECIFIC PROJECT LOCATION & REGIONAL VARIABLES)



## MOST COMMON ATTACHMENT LOCATIONS

# 2 GENERAL CONSIDERATIONS

- BE CERTAIN TO HAVE SUITABLE FOUNDATION ACCEPTABLE TO LOCAL BUILDING PRACTICE & VERIFIED BY LOCAL OFFICIALS.
- PROVIDE FOR VENTILATION POSSIBILITY IN FRAMING CONSTRUCTION TO PREVENT OVERHEATING, AVOID UNDERSIZING VENTILATION.
- MAXIMIZED GLAZING AREA ENHANCES THE PHOTO-SYNTHETIC PROCESS REQUIRED FOR SUCCESSFUL HORTICULTURE, AT THE EXPENSE OF DECREASED THERMAL PERFORMANCE FOR HEATING THE HOUSE.
- THE SPECIFIC CLIMATE CONDITIONS OF THE SITE, TOGETHER WITH THE DESIRED HORTICULTURAL CRITERIA, WILL DETERMINE THE DEGREE TO WHICH THIS AFFECTS THE DESIGN OF GLAZED & NON-GLAZED AREA OF THE GREENHOUSE.
- PROVIDE PROPER ROOF DRAINAGE & WEATHERPROOFING TO PREVENT DAMAGE DUE TO MOISTURE BUILD-UP & LEAKS.
- ENSURE ADEQUATE MOISTURE VENTILATION OF INSULATION IN ROOF & WALLS
- LOCATE ACCESS DOORS SO THAT ONE CAN ENTER THE GREENHOUSE FROM INSIDE THE HOUSE, & ALSO FROM OUTSIDE THE HOUSE.

## SUGGESTED LOW-COST DESIGN FOR ATTACHED GREENHOUSE

FRAMING ASSEMBLY & GENERAL CONSIDERATIONS		DATE	SCALE
DRAWN:	HANS HAUMBERGER	1/10/89	NO SCALE

HT:

1

projects came in. The government funds lots of community projects. The positive side of these programs, particularly in solar, is that individuals can often take part in the installation of new equipment on an institutional community facility (like a library), see how it does, see how it is maintained and repaired, and ultimately give long consideration to the purchase of a unit for the home. "Active" solar panels have been an example of funded community demonstration projects that are catching on, but slowly. In effect, one heating system is traded for another. A comparatively cheap conventional system (oil, gas, electric) whose costs for fuel are likely to skyrocket is replaced by expensive solar panels that will require minimal fuel (for pumps) and that will have paid for themselves in fifteen years. Most people say, "I'll wait till the price comes down."

But with solar greenhouses, the story has been very different. People pay to go to workshops to build solar greenhouses on other people's houses! People actually attach solar greenhouses to their homes and move into them, virtually abandoning their former living spaces. There are whole networks of people exchanging information on how to use solar greenhouses. There is many a comfortable Senior Citizen (for Senior Citizens Centers have been prime recipients of government solar greenhouse grants) sitting out there in the 80° greenhouse in the middle of winter reminding a fellow gardener to put on his coat before leaving "Florida."

Solar greenhouses provide abundant and reliable daytime heat, wonderful recreation space, and natural light. Once plants are brought in, they serve as natural air fresheners. At night, most will remain above freezing in even the most severe winters if properly oriented and tightly sealed. Many will support the growth of vegetables year-round. And while cost is a factor for luxury and convenience, a cheap greenhouse handled with care will perform just

as well as your cadillac variety. Love and persistence are the keys.

But back to my point about community demonstrations. I participated in several "community" solar greenhouse raisings before reaching the point of being willing to actually do something to the outside of my house besides paint it or replant. I had always seen the exterior as some kind of sacred barrier, the property of "a builder." I had no idea what was behind the boards. I knew that "walls" were on the inside, but that was about it. (It was a revelation when we remodelled the bathroom and I saw studs and exterior wallboard--all uninsulated--for the first time!) Even while actually working on my first community solar greenhouse I didn't really grasp what it was that we were doing.

We were working in Pembroke, a kind of backwoods Black area about forty miles south of Governors State. We were there because the local women I knew, particularly Louise Howard, thought that a solar greenhouse for the community would be just great--for food drying, winter vegetable production, starter plants. It'd never occurred to me that they would be the most receptive audience for solar that I would encounter. Nor did it seem strange or noteworthy that poor people found solar technologies simple and compelling while communities nearer to home and more suburban in orientation had not found the ideas particularly attractive.

In the eighteen months that we spent building the community prototype, three or four other greenhouses were built in Pembroke. While we used complex designs for the large structure, which would be used later for different kinds of experimentation and testing, the locals made quick adaptations and began attaching them to their homes and businesses.

I think I caught Pembroke greenhouse fever in November of 1979 when I stepped into Joy Camp's greenhouse





2



5



3



1). A modest bungalow in disrepair goes slowly solar. The home of Bethe Hagens and Jim Laukes. 2). "It's really nothing new. I don't know why we never did it." James Felton, Sr., Mgr., Pembroke Health Foods and Restaurant. 3). The "Big Greenhouse" in Pembroke where experiments proceed with plants, earthworms, laying hens, and composting. 4). Art and Joy Camp attached their greenhouse for about \$125. 5). Joy had it planted before Art got it sided.

and saw not only ripe pole beans and cucumbers, but bright red tomatoes. Joy and Art's greenhouse was built for about \$125 (most of that for fiberglass for the south-facing side) and some scrounged lumber and van windows. They used the NCAT design reprinted above. In fact, their greenhouse was tied into their whole house in a kind of fascinating way. The basement windows at ground level on the south side of the house were enclosed by the greenhouse. So was the large, south-facing living room window. Joy opens and closes the windows depending upon the weather. Many days, hot air from the greenhouse pours into the house and will keep the heater from switching on. As the hot air leaves, the cooler air from the basement is pushed into the greenhouse and heated by the sun. Meanwhile, the Camps and the vegetables enjoy the circulation of fresh air.

Felton's Pembroke Health Food Store greenhouse is a similar story. About \$500 in materials, substantially reduced winter fuel needs, and--the BIG difference--more customers for the store.

Reporters come from all over to Pembroke for interviews. The Camps resent the emphasis on "low cost" and "new solution." "This is old, typical stuff that they're making too much out of," says Joy. "And besides, I'm not poor. But oh, I love my greenhouse. Mr. Camp is going to extend it all down the side of the house and over to that out-building." And James Felton talks about the happy hens in the community greenhouse, the money savings for his store. To reporters. In private, he tells me that he can't understand why we didn't do it before. "We all knew all these things. All the pieces were there. Why didn't we do it?" Now, at 68, he worries only that we won't get it to the young children fast enough. "If they don't take it, then none of it was worth it, was it?"

Our house is not a low-cost variety greenhouse addition. But then, neither is it a speedy one. Whereas the typical solar greenhouse can be finished within a week, ours is now in its eleventh month and still many months from completion. Essentially, we had a foundation that would need replacing and a roof in very bad repair. Rather than repair and then think of redesign, we tried both at once. We poured a new foundation and extended it out to include a greenhouse space. We raised the roof, Egyptian style, to create a loft for a new two-story greenhouse. The cost will be about three times what the repair would have entailed, but we will have gained an auxiliary heating system, a sunporch, a year-round garden, and about 1/3 more floor space for the house. Not to mention the greatest surprise, which has been cooling this summer for the rooms directly to the north of the addition--the kitchen and dining room. Apparently the greenhouse is an excellent insulator. Even unfinished!

The hardest part of all of these greenhouses, but especially my own, has been living through the periods before they are completed. Sometimes the mess, and the dust, and the lack of order are really disheartening. But then I wanted to do this cheaply and as I could afford it, right? And the components that are in place are in place for longer than I'll be alive. And if it's just going to get so totally dirty again tomorrow, why be so compulsive about cleaning anyway?

Slowly, you work yourself through the period of construction into real anticipation. How will it feel, what can we grow, should we really sleep in there? And you find that you don't go out as often. Some researchers seriously mention a kind of "three year honeymoon" before you take the greenhouse for granted. But you know, when I look out there and see Lauk (my sweetie) craning his head toward the sun trying to orient one of our solar ovens, I like staying home even more.



Mary Appelhof's work is prolific, integrated, and underpaid. She is unable to resist the attraction of art or the scientific method of problem solving. She's a woman who keeps her hand in graphics design, photography, feminist business advocacy, vermicology (the study of earthworms) and community organizing. The perspective she provides here is that it all fits together.

B. H.



Mary Appelhof (left) and Ilda Wissman, founders of Flowerfield Enterprises peering from a woman designed, woman-built shed. Photo: Bernie Heywood

#### WORMS VS. HIGH TECHNOLOGY

by Mary Appelhof

One factor in surviving our technological age will be our ability to more effectively utilize biological systems to restore the imbalances our technologies create. Consider the flush toilet. Odor-free. Convenient. Relatively trouble-free. But then think of the water it takes to keep it operating: 10,000 gallons per person per year. In most cases, this water is high quality, potable water, used

merely to dilute, then disperse bodily wastes away from the point of deposition.

"Away" can vary from a few feet into a septic tank and tilefield to miles away through a complex sewer system with expensive, highly technical, energy intensive wastewater treatment facilities. What to do with the sludge from wastewater treatment plants is becoming an increasingly greater problem as landfills close, and ocean dumping becomes illegal.

Sludge composting, aquatic plant,

and land application systems are being developed to utilize biological systems to convert wastes in environmentally sound ways. But what I would like to address here is how an individual living in a home or apartment can reduce the amount of household kitchen waste to be diluted and flushed down the drain, or hauled away as solid waste to the landfill. The biological system which accomplishes this is one which utilizes earthworms, or more simply, worms.

Two reports from as early as 1954 describe procedures for using worms to process household garbage. Two women (Crowe and Bowen), a teacher and an insurance agent, used worms and worm compost to change their "concrete soil" backyard to a bountifully producing, lush, luxuriant garden. Although they had several outdoor worm pits, to enable the worms to work throughout the Ohio winters, Crowe and Bowen built a large concrete block pit (9 x 4 x 2½ ft) in their basement. Drainage was provided by pouring a slanted concrete floor on top of a row of 8 inch blocks with a drain hole at the low end. To several bushels of cow manure and leaves they added earthworm laden compost and soil on which they sprinkled ground limestone and rock phosphate.

Crowe and Bowen buried their kitchen garbage in this pit all winter, a gallon or so each time, keeping the bedding moist, and rotating deposits daily around the pit. Melon rinds, egg shells, coffee grounds, citrus rinds, even bones were buried. Worms and other microorganisms converted this organic material to worm compost, mixing in the inorganic materials for a nutrient-rich humus to use in their garden.

The worms multiplied, and Crowe and Bowen established a business called Wonder Worm Farms, marketing their worms as "Wonder Worms". They eventually got so many "how to do it" inquiries they published a 32 page pamphlet to serve as a "this is what we did, here's how you can do it" account of their

experience in using earthworm compost to restore the fertility of their soil. WITH TAILS WE WIN is still available today from Shields Publications<sup>2</sup>.

Also published in 1954, LET AN EARTHWORM BE YOUR GARBAGE MAN (Home, Farm and Garden Research Associates) describes an outdoor compost bin, also built with concrete blocks, but which was bottomless in order to attract wild worms from the soil to help convert garbage and lawn residues to compost. Recommending two or three of these four square feet pits per family, they described a procedure which looked highly labor intensive with sod digging, cement block laying, mounds of straw to haul, huge cans of garbage to bury, provisions for rodent control by means of screens and boards.



Mary sorts a handful of worms from some well-processed manure and garbage, most of which is now worm castings.

Photo: Diane Johnson



Although we don't know how many families have gone to the effort of setting up either of the previously described worm composting systems, thousands of both publications have been sold, and the fact that they are still in print indicates at the very least, a high interest in the potential for using worms to process garbage.

Garbage can composting with worms became quite popular in the early 1970's in the Rochester, N.Y. area (Weir, 1974). Three annual, well-publicized "Afternoon of Composting" tours expanded from a mere handful to hundreds the number of home basements containing garbage cans with redworms.

My own experience using redworms for garbage disposals began in 1972. Two factors contributed to the decision to first purchase worms: 1) It seemed from the promotional literature that a profitable business could develop, and 2) Raising earthworms and encouraging their use appeared to make a lot of sense environmentally. They converted wastes to usable materials, and they contributed to the fertility of the soil. My partner at that time, Ilda Wissman, and I, purchased two pounds of worms, and established our business, Flowerfield Enterprises, named after the township of which we were then residents.

Wiss built a coffin-like box in the basement to house the worms, and we hauled manure to fill it. We read books about raising and marketing worms, including the two 1954 publications. When spring came the worms had multiplied so we laid a cement block pit in the old basement of an unfinished house.

We counted, one-by-one, and sold over 50,000 worms that first season. That sounds like a lot of worms, and it is when you count them one at a time, but at a wholesale price of \$6/1000, that's a total revenue of only \$300, and hardly a money-maker considering the time, effort, and materials required. We knew that to produce real income we would have to

expand. And to stop counting worms one by one. We learned from our reading that growers selling large quantities were also using perhaps tons of grain to fatten up those worms for bait. We objected to that from an environmental standpoint. To feed tons of grain to worms when people were starving around the world was inconsistent with our desire to be involved in an environmentally sound business.

So we changed tack, saying, "We know the worms are good at eating garbage. We know the compost produced is laden with nutrients to make plants grow better. Let's encourage the use of worms for doing what they are good at-- converting garbage to a useful end product--and play down fattening them up with grain to sell them for bait."

Our first venture into publishing did just that. We wrote and published a two-page illustrated, copyrighted brochure, "Basement Worm Bins Produce Potting Soil and Reduce Garbage" (Flowerfield Enterprises). Articles in national publications, including Ms. Magazine (Wissman), brought inquiries from all over the country. Letters of support (rarely money, or even a stamp), encouragement, curiosity as to how we did it, and inquiries about "How can I do it?" came pouring in. We answered all but the ones which got lost in the ever increasing pile on my desk. And sold worms, by the pound, and publications. Mostly, we just spread the word.

I wrote articles. I prepared grant proposals to scale up the system. We gave demonstrations at fall harvest festivals and barter fairs. I gave talks to organic growers, and garden clubs, and community organizations.

After five years of submitting proposals, two finally got funded, and a current climate of encouragement exists across the country. The National Center for Appropriate Technology funded a Kalamazoo Nature Center project to have six low-income families save their household kitchen

wastes, burying them weekly in simple wooden bins at the Nature Center (Appelhof, 1979a). During the fourteen weeks, black women and white women, young and old, fed 297 pounds of garbage to 24 pounds of worms. Each participant received about 40 pounds of worm compost to use in her garden. They claimed that the compost made all the difference in the world in their gardens. The women loved the project, perhaps from the attention and publicity they received, but also because they liked to do it. It was simple to learn what could go in (organic wastes), what must be kept out (bottle caps, plastic). They liked learning something new, something that made so much sense. (Appelhof, 1979b).

My efforts continue to simplify the technique of using worms to process garbage, to make it more acceptable. Our first bin, described in the previously mentioned brochure, used a galvanized stock tank lined with gravel, covered with oak planks, containing several bushels of manure and peat moss as bedding for the 2-3 pounds of worms. It requires a lot of personal dedication, and a basement, to set up that cumbersome a unit to process the pound or so of garbage which may be generated in a household.

For the NCAT project we used a much simpler system of homemade plywood boxes with holes in the bottom for aeration. Moistened shredded cardboard or newspaper was used for bedding, a burlap bag as a cover to help retain moisture. The instructional brochure developed for this project, "Composting Your Garbage with Worms" (Appelhof, 1979c) is available from the Kalamazoo Nature Center, and has resulted in a number of families setting up similar bins.

In my own household of two, I continue to experiment. I use a 2' x 2' x 8" plywood box with nine  $\frac{1}{2}$ " holes in the bottom for aeration. I experiment with beddings, trying to determine what readily obtainable materials will provide a satisfactory environment for the pound or two of worms to interact with the micro and other macroorganisms to convert the garbage to worm compost. Shredded cardboard works, but is difficult to obtain. Shredded peat moss may not be good by itself (Appelhof 1980), but is good in mixtures. Manure works. Shredded newspaper seems to be working. A thin layer of soil can be used on the bottom, but isn't necessary. A loose plastic cover on top helps retain moisture. Burying the garbage, covering it with one or two inches of bedding, reduces or eliminates odor.

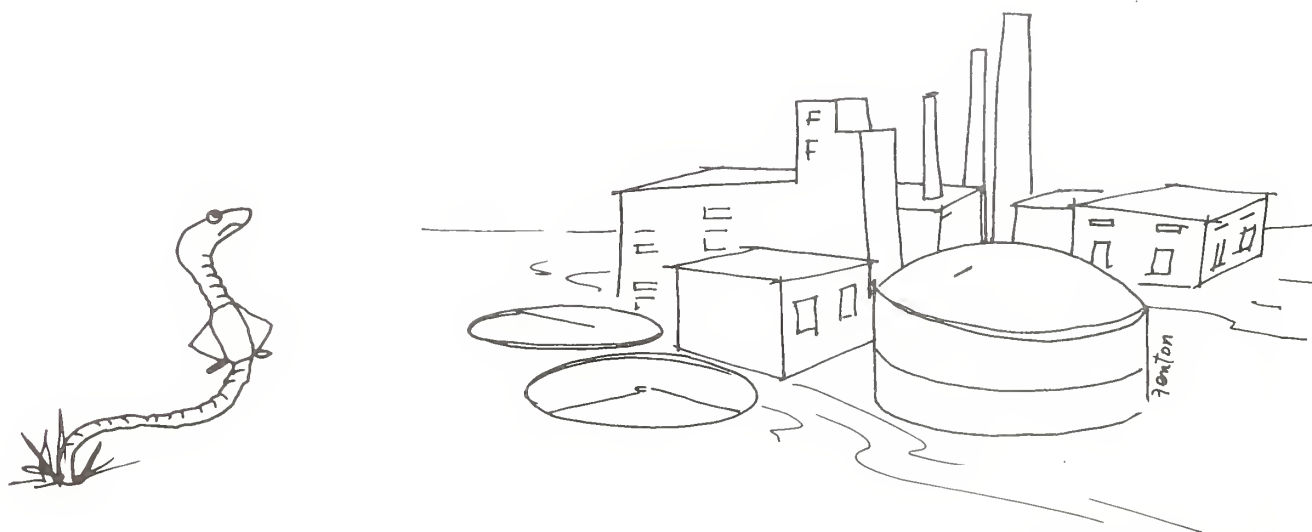


Illustration: Mary Frances Fenton

Tiny humpback flies are a bit of a nuisance, and we are trying to find a biologically sound way to deal with them.

Maintenance of a household vermicomposting unit is reasonably simple. A box could be built and set up in half a day or less. Once the worms are in and established, it may take ten minutes a week to bury the garbage, that is, if you want to spend a few minutes observing the worms, looking for cocoons (pale globes about  $\frac{1}{2}$  the size of a grain of rice) from which will hatch baby worms in 2-3 weeks. Because high concentrations of worm castings (worm manure) are toxic to the worms, every four months or so, fresh bedding should be prepared, and the worms separated from their old bedding, now black, humus-rich, nutrient laden vermicompost. This can be done in a couple of hours by dumping the entire contents in a cone shaped pile on a large plastic sheet, and shining a bright light above the pile. Worms will quickly move away from the light and towards the center of the pile. By intermittently scraping the top compost off the pile, you will eventually end up with wriggling masses of worms at the bottom. These, with some of the cocoon containing compost, can then be placed on top of the fresh bedding for the next cycle.

The vermicompost makes excellent transplanting medium when mixed with soil, potting soil, peat moss, sand, or whatever you might normally use. If there is sufficient organic material for food, any worms present will also make your plants grow better. We do not recommend that you plant seeds or cuttings into 100% worm castings for a number of reasons, including inability to hold moisture, and excess salt concentrations. Preparing mixes using from 1/5 to 1/3 worm castings, or using them as top dressing for your plants should bring excellent results.

Added support for my feeling of encouragement at this time comes

from the fact that the National Science Foundation funded a workshop, to convene the top earthworm scientists and worm industry leaders to define Research Needs in the Role of Earthworms in the Stabilization of Organic Residues. As coordinator of this workshop I met in Kalamazoo, April, 1980, with scientists from seven foreign countries, Canada, and U.S. to assess where we are now, and what research needs to be carried out to develop the potentials which exist for earthworms to convert wastes to usable products and help restore the fertility of our soils. A pre-conference bibliography of over 1200 citations on earthworm research since 1970 (Role of Earthworms-Bibliography) has now been expanded to over twice that size. So I am encouraged that communication is occurring, research is being done, impressive large scale projects are being undertaken.

Recognition for the finite nature of our resources is causing more and more scientists and decision makers to take a look at technologies which exploit the environment. As more see that exploitation is a no-win decision for the long haul, some will be looking for technologies which are environmentally sound to begin with.

I intend to be there with my worms, to take my wastes, to convert them to plant food, to feed my plants, which, in turn will feed me. What simpler way to survive our technological age?

#### NOTES

1. Both 1954 publications described here are treated more fully in "Household Scale Vermicomposting", presented at the Research Needs Workshop on the Role of Earthworms in the Stabilization of Organic Residues, April 9-12, 1980. The workshop was funded by the National Science Foundation Grant #OPA 7919-



- 672 awarded to the Institute of Public Affairs, Western Michigan University, Kalamazoo, Michigan.
2. Shields Publications, PO Box 669, Eagle River, Wisconsin 54521.

#### LITERATURE CITED

- Appelhof, Mary 1979a. Winter composting with worms. Final Report to National Center for Appropriate Technology, Butte, Montana.
- Appelhof, Mary 1979b. "Vermicomposting on a Household Scale" In: Proceedings, International Colloquium on Soil Zoology, Syracuse, N.Y. July, 1979. In Press.
- Appelhof, Mary 1979c. "Composting Your Garbage with Worms". (Brochure) Available from Kalamazoo Nature Center, 7000 N. Westnedge, Kalamazoo, MI, 49007. (\$1) 4 pp.
- Appelhof, Mary 1980. "Household Scale Vermicomposting". In: Role of Earthworms in the Stabilization of Organic Residues, Kalamazoo, Michigan, 1980: Proceedings, compiled by Mary Appelhof. Kalamazoo, Michigan: Western Michigan University Institute of Public Affairs, 1980. In preparation.
- Crowe, Mary and Gladys Bowen 1954. WITH TAILS WE WIN. Available from Shields Publications, PO Box 669, Eagle River, Wisconsin 54521. 32 pp.
- Flowerfield Enterprises 1973. "Basement Worm bins produce potting soil and reduce garbage". (Brochure) Available from Flowerfield Enterprises 121 E. Van Hoesen, Kalamazoo, Michigan, 49002. (\$1) 2 pp.
- Home, Farm and Garden Research Associates 1954. LET AN EARTHWORM BE YOUR GARBAGE MAN. Available from Shields Publications, op cit.
- Role of Earthworms in the Stabilization of Organic Residues, Kalamazoo, Michigan 1980: Bibliography, compiled by Diane Worden. Kalamazoo, Michigan: Western Michigan University Institute of Public Affairs, 1980.
- Role of Earthworms in the Stabilization of Organic Residues, Kalamazoo, Michigan, 1980: Proceedings, compiled by Mary Appelhof. Kalamazoo, Michigan: Western Michigan University

- Institute of Public Affairs, 1980.
- Weir, Byrna 1974. "Compost piles: You show me yours, I'll show you mine". In: OUT IN THE OPEN. Available from Porter-Tel, PO Box 18041, Rochester, N.Y. 14618. 98-116.
- Wissman, Ilda M 1973. "Inching Into the Worm Business". In: Ms. Magazine, August, 1973.





I still remember the day the Kirby man came. And my little brother John hollering "So long, sucker" as he drove off with our old machine. My mom writes this story.

B.H.

KIRBY, THE CADILLAC OF  
VACUUM CLEANERS

by Lucie Hagens

Coming from a line of people who believed in name brand buying, the Del Monte label, the Whitman's Sampler, Beautyrest in bedroom furnishings, I carried into the early years of our marriage the image of my mother's Hoover Sweeper. It was upright and large, the last of the great Hoovers, with a little side pedal which enabled it to adjust to carpet depth. You could hurry with it around the center pedestal of our dining room table without fear of scratching the spreading scrolled legs. When I closed my mother's house fourteen years ago I left the Hoover in its closet in the kitchen and there is every reason to believe that it is still beating as it sweeps as it cleans.

My husband and I were married during WWII and gave little thought those few months we had together to deep cleaning. I used to borrow the building vacuum from our apartment landlady and wish over things if someone was coming over. But after my husband went overseas with the U.S. Army, I used to clean not only our apartment, but the entire upstairs hall in an effort to forget the joys of our brief time together.

On our first Christmas together after Japan surrendered, my big gift was a vacuum cleaner from Sears. My husband had been convinced by the salesman that it was manufactured by Hoover but carried Sears' own label. I used it for ten years and kept a fairly tight ship. By the time we

had moved to our second house, the carpeting seemed so vast I was at it constantly. One morning there was a rattle and my Kenmore flung its rubber belt across the room and began breathing dust back out of its mouth. Before we had a chance to discuss the best solution, my husband was off on a trip, and I was charmed into opening my door and offering my hospitality to a Kirby Vacuum salesman.

He displayed an array of attachments which would not only do what I wanted done, but in addition would polish silver, spray paint, shine up the car following the application of wax, and chase moths. With a twist and a flourish the salesman turned the thing into a hand vacuum and led the way into our bedroom where he threw back the bedding and ran his machine over the mattress. We returned to the living room where he removed a little filter and showed me how poor my cleaning methods were. I was in a suspended condition somewhere between delight and horror at what I saw, and euphoria at the thought of undreamed of vacuum power.

The price was outrageous but the salesman was a whiz. He assured me that monthly payments could be worked out. As a matter of fact, he said, if I could convince my friends to have demonstrations such as I had experienced, I would receive \$2.50 for each friend toward the total owed. I signed right on the dotted line and off he went, leaving me with cartons and booklets and a payment record with certain threats in small print. The first friend I called taught me a valuable lesson. Following my awkward and apologetic presentation she said she'd rather just give me the \$2.50. She already knew how to say "No" at the front door.

I was weeks at acquiring ease with my new machine. Everything was so heavy and required the use of

wrenches and a knowledge of dynamics. By the time I got the polishing or drilling cable attached and functioning, there was so much equipment operating it would frighten the children. I liked the long attachment, narrow at one end, which would go between the refrigerator, or the piano and the wall and suck out lost toys. There was a little red plastic cap just behind the bag into which one could pour a few drops of Pine Scent which came in a bottle in one of the boxes. It seemed nice at Christmas time. Many years later I discovered I could create the same pleasant odour by vacuuming up the needles under the tree. My mother-in-law gave us a lovely little oriental prayer rug and the fringe disappeared into the voracious jaws of my Kirby. It was and is so powerful that one must be careful. After we had the house recarpeted, we had to watch that we didn't suction the new carpet right off the stripping to which it was attached. There are eight (from zero to seven) levels of nap adjustment to be used judiciously.

Just under the red plastic handle grip there is a slot into which, the salesman said, you could drop dimes. The quarter and nickle were not to be used lest they lodge and impede the accumulation of savings. Eighteen inches of dimes was a lot of money then, and I used the handle the way my grandmother used her sugarbowl. In its time that dime bank purchased two baseball gloves, a violin bow, and began payments on orthodonture.

It was always a victory to fit the parts back into the correct corrugated slot or groove so that the attachment boxes would close. Eventually the boxes which accommodated the disks and cables and extra bolts remained more and more at the back of the closet. Our Kirby narrowed down to being an upright with attachments. One box still is stored in the broom closet. It hangs on the left and we bump into it when looking for broom or fly swatter.

When in the upright position, if the boys had left parts of their erector set on the floor of their room, these would be caught up and masticated without the smallest damage to the vacuum. It performed not only weekly cleaning, and the seasonal housecleaning which was still the thing in those days before we all sought careers outside the home, but feats of emergency clean-up following birthday parties, Christmas and Thanksgiving feasts with our families, baseball team celebrations, the junior high school honor society's not so dignified goings on at the end of the school year, many a slumber party with its crushed potato chips. It took charge of the spilled ash tray of the day. That no longer happens since we've given up that lovely habit.

There were extra rubber belts in one of the box sections, but I've replaced them only once. The emptying of the bag, which does not accommodate the paper liner as other cleaners do, is laborious but satisfying, as one alternately turns the start button on and off, and then quickly shakes the bag so that its contents will drop into a cast aluminum box along one side of the head. Then a lever is flipped and the bottom of the box lifts to one side and the accumulation of dust and dog hair and all that somehow gets into your carpets falls on to a newspaper spread beneath.

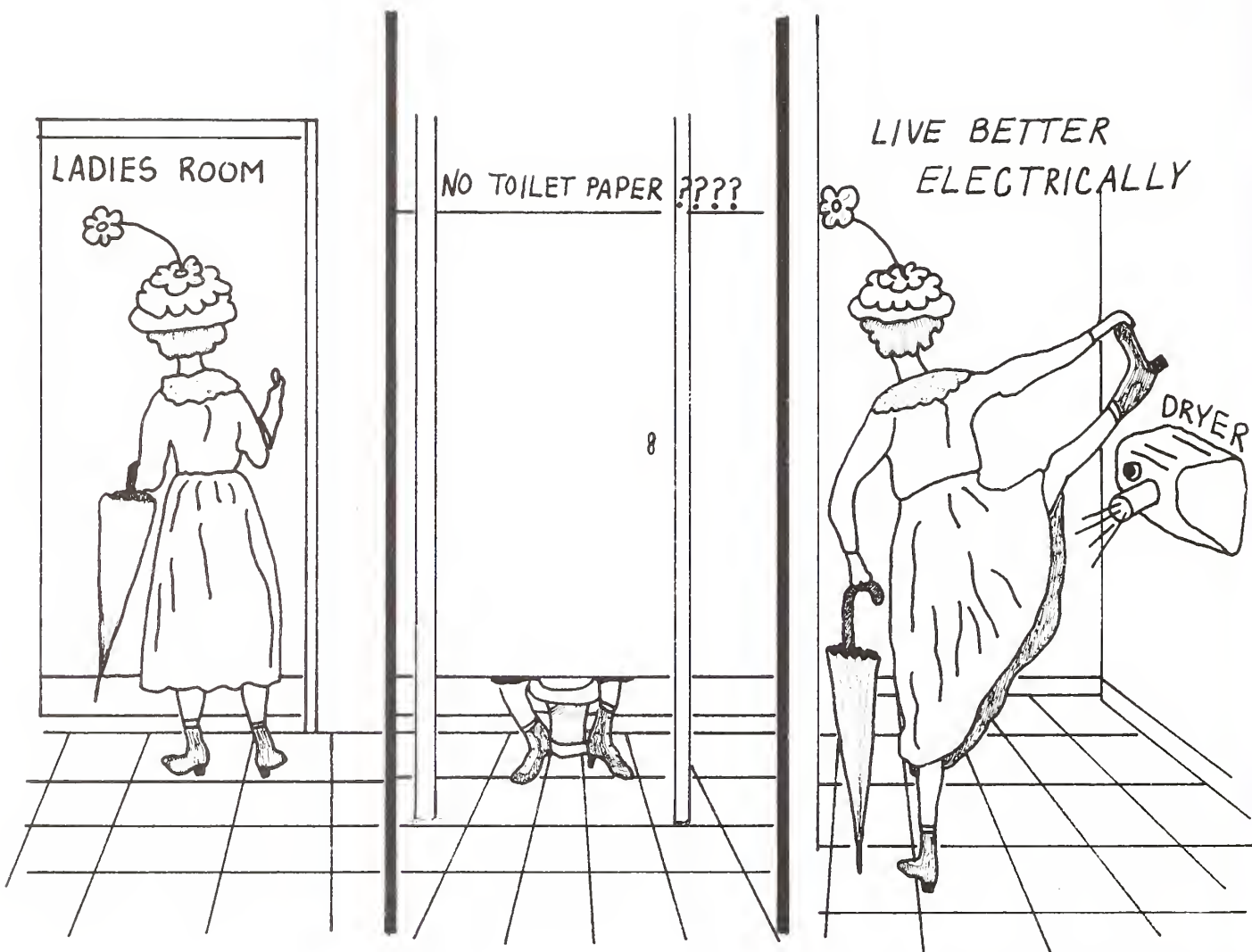
About eight years ago, having vacuumed my way through three houses over a period of twenty years, it seemed a housewifely thing to take my cleaner to the Rosemont Vacuum Company for an overhaul. That is what I asked for when I went in--an overhaul. The gentleman behind the counter looked through the bottom of his bifocals and said, "Ah, a Kirby, the Cadillac of vacuum cleaners." He couldn't find anything wrong with it. A new bag, I thought. "No," he pointed out, I could see that there were no breaks in it, and the seams were good. Perhaps the brush then.

That too seemed somewhat worn, but certainly adequate. The broken place in the attachment hose responded to some wide red Kirby tape. The cord and electrical connections were fine. He wiped the shiny parts with a treated cloth which caused them to gleam, sprayed graphite within the head, and told me I was free to take my cleaner home. There was no charge, and he held the door open for me as I left, cautioning me to take care of my Kirby since it is a lifetime companion. I began to realize what treasure I'd paid so dearly for when young.

It took a little time for this experience to take on its fullest meaning. The onus of the payment book had stayed with me long after the final payment, but now I discarded all that unpleasantness. The boxes of spray paint and polish equipment now fit beautifully and far out of sight at the back of a deeper cupboard. Our cleaning man often reenforces me by telling me I have the best vacuum cleaner of all his customers. Not long after my visit to the repair shop, I read that the gentleman who helped change my attitudes had died, and his nephew would succeed him in the business. I only hope he is the man his uncle was, but there is some doubt that this ever will be put to the test by me and my Kirby.







Thanks to Jean Dekker for our graffiti

A LETTER FROM JEAN KALWA

Dear Bethe,

I suppose you'll buy leghorns, those new crossbreds who are super-efficient at converting feed into sterile-looking white eggs. But I sort of hope not (nostalgia is overtaking me--always a bad sign.) What I hope is that you have what used to be called and, perhaps still are, "heavy breeds"--Plymouth (sometimes called "barred") Rocks, Buff Orpingtons and, my favorite, Rhode Island Reds. Now the R.I. Red is a hen. Nice full bodies, excellent egg production and gorgeous deep brown-red feathers--and tame. You can pick them up like pussycats. The roosters, of course, are a different story. Born belligerent and super-horny, they're really good for little except to be fried at the earliest possible opportunity before they get old and tough and vicious. They are not quite as resplendent as Buff Orpington roosters, though, who at maturity have some shiny green feathers to set off the deep gold of the rest of their plumage and which, if anything, are twice as mean as other male birds.

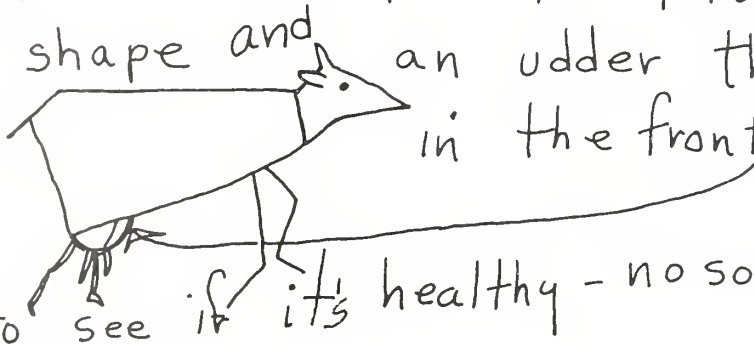
The good thing about these birds is that after your laying hens have finished their year of full production, they are the absolute best for simmering slowly with home-made noodles. Don't try to get a full-grown rooster really tender- it's like cooking tripe à la Caen.

Zoning laws probably preclude the raising of goats. That's too bad because I think any form of subsistence farming is a little incomplete without some of these gorgeous creatures. If you ever buy any does of whatever breed, be sure to look at the shape.

(I have a feeling I ought to shut up--but the good thing about a letter is that you can throw it away at this point instead of having to listen politely to me harangue).

If your doe ever injures her udder (barbed wire, etc.) zinc oxide ointment is the best thing to use unless it's really bad enough to call the vet. Don't worry if she's got horns. Usually (no matter what they say--animals bred for hornlessness don't give as much milk--that's not 100%, only in general). Besides, most does are as gentle as house pets. Bucks, of course, are a different horse. (sorry to mix that metaphor) A full-grown buck goat will kill you or anybody else given the chance. But the nifty thing is that you would need only one buck for a whole herd of does and I'm sure you could arrange suitable security for your caprine friend. Also should tell you but you probably know--does do not have a smell. A herd of does does less damage to olfactory nerves than the same number of dogs, let alone cows. But the buck does--so pen him as far as possible from

Anyway a good doe will be shaped maternally, like this - look for that nice trapezoidal shape and an udder that is well-attached in the front. Check the udder to see if it's healthy - no sore teats, etc.



where people live as you can conveniently manage.

I am listening to Pete Seeger sing My Lover was a Logger (who stirred his coffee with his thumb) God-- will I never grow up?

Of course you know that goats don't eat tin cans, but they are nowhere as finicky as the goat magazines say. I used to feed mine good hay and half a coffee-can of horse feed (medium-priced grain mixed with molasses) when I would milk them morning and night.

I have to tell about having Kids. Most goats mate in Sept.-Oct., except Nubians (those are those beautiful Roman-nosed goats with long drooping ears like Bedlington Terriers- they give the least milk--highest butterfat--like Jersey cows) which do it every chance they get. Five month gestation. When Kids are born, castrate bucks with a plain office rubber band around scrotum next to the skin. Balls will drop off within a week--not even a scar. Try not to make bucks pets (it's hard), but you'll be eating them soon (6 months to a year--better than veal). Separate Kids from does (after colostrum stops) although the does will complain a lot, and start feeding Kids dry calf-starter mixed up with water in a pan. Some people have trouble pan-breaking Kids but I never did. Just stick your hand in the calf-starter and let the Kid suck your finger--it will get the idea. New Kids should be fed frequently about every couple of hours. I used to bring them into the kitchen to keep them handy at this point.

Good Luck!

Love,  
Jean





## SOLAR GINGERBREAD HOUSE

Here is an "old fashioned" construction project that is more fun than we ever imagined--a gingerbread house. The new twist is that there's no reason it can't be a solar gingerbread house! We simply measured the house, windows and all, sized it on graph paper so that it was about 1/2 inch for 1 foot, and began baking by the recipe below. The baking took hours, but we decorated the walls at a Christmas party and glued it together with friends who dropped by the next day to see how it was going.

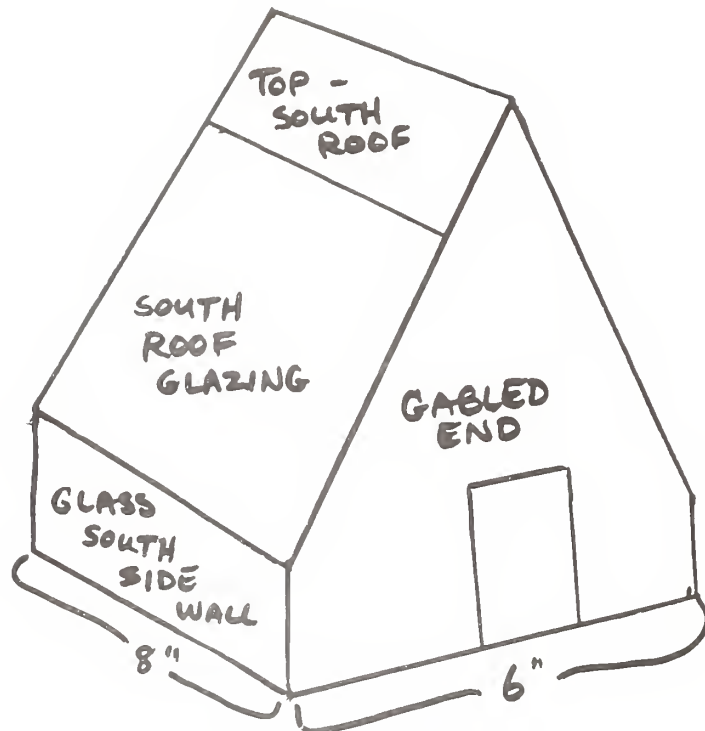
I can't emphasize enough that you can't do it in an afternoon. But, if you follow the directions, you can't fail. And you learn an amazing amount about your home, support walls, stress, and drafting in the process. You can even use the house dimensions that you collect for an energy audit... later.

If you don't want to measure your home to make customized patterns, use ours that are given below. Your finished product will resemble the drawing on the upper right corner.

First, cut out and label cardboard patterns for roof, sides, and ends of house. Then make up dough and cut patterns as guides. Dough is cut and baked on cookie sheets, so you'll need three or four, or space your work so that one cookie sheet is enough.

It is easiest to decorate pieces after baking but before assembling, while you can lay them flat. Then when the frosting "cement" has hardened, put the house together and touch up joints with frosting "snow".

Cardboard Patterns. Use poster board, light cardboard, or graph paper. For the north half of the roof, mark off and draw an 8-inch square. For the south side, draw an 8-by-3-inch rectangle and an



8-by-5-inch rectangle. Cut out. For the side walls of the house, draw a 8-by-4 inch rectangle. Cut out. For the gabled end walls, mark off a 10-by-6-inch rectangle. On each ten inch side, mark down 6 inches from the top. Make a mark at the middle of the top 6-inch side. Connect the dots, and cut on the angled lines.

Gingerbread. You need to cut out and bake the north roof section, the 8x3-inch roof section, one side wall, both gabled ends, doors and shutters for any openings that you cut out in your patterns.

Begin by making one recipe of gingerbread dough. Roll it out, and cut out as many pieces as you can squeeze on. It is easiest to do dough rolling on the cookie sheet. Roll it to no less than 1/4 inch thick. Cut with patterns, using a sharp knife. Patterns pieces can be fitted right up against each other even while cooking.

Refrigerate on cookie sheet 1 hour before baking. (This prevents the pieces from expanding. If you are making your own pattern to replicate your home, this is crucial. You can cut pattern pieces as detailed as

you wish. The pieces will remain exactly the size you planned them!) After baking and cooling five minutes, cut apart pieces with a sharp knife.

Excess pieces of dough can be shaped into trees and shrubbery.

#### Glazing (Glass for the Greenhouse).

Follow the recipe very carefully, being especially careful not to use too much butter or corn syrup! Place roof pattern piece 8-by5-inch, and side pattern on separate pieces of tinfoil. Bend up the edges of the tinfoil around the edges of patterns to form a shallow little tray. Pour hot candy into each tray and let set.

Decorating. The most fun is to have a family or family and friends party with plenty of gum drops, nuts, tiny candies, colored sugar and the like on hand. Simply spread a thin, flat layer of "snow" on the piece to be decorated, and go to it. We recommend black licorice strings for the top south roof piece (8-by-3-inches) to simulate a solar collector.

Let all pieces set overnight. Cover bowls of "cement" and "snow" with damp paper towel and plastic wrap and refrigerate overnight.

Building the House. You'll need a large flat tray or piece of styrofoam to build on. To put the house together, knead the decorator "cement" until like putty, then roll it under fingertips into pencil-like strips. Set up the north side wall with inside against one or two unopened fruit juice cans. Press one strip of cement to the vertical edge of the wall. Press a gabled end at right angles to the cemented edge. Repeat with the remaining walls, and let set, using fruit juice cans for support. Wait about 45 minutes.

Remove the fruit juice cans, and set the north roof section in place. Cement the top of the south roof (8x3-inches) to the north side along the ridge. Then set the "glazing portion" (5x8-inch) in place and cement at bottom of the south roof face. Let set. Finally, if you're building your home in winter, swirl as much "snow" frosting as you dare on roof and sides to simulate winter.



PHOTOS BY JIM LAUKES

(1)  
The complete solar gingerbread house, glazing proudly oriented south.

### GINGERBREAD DOUGH:

6 C sifted all-purpose flour  
4 tsp. ground ginger  
1 C butter or margarine  
1 C firmly packed light brown sugar  
1/2 C dark corn syrup  
1/2 C light molasses

Sift all-purpose flour before measuring. Measure 6 cups, then sift again with 4 tsp. ground ginger into large bowl.

In medium saucepan, combine 1 cup each butter or margarine and light brown sugar, firmly packed, 1/2 cup each corn syrup and molasses. Heat over low heat, stirring occasionally until butter is melted. Stir into flour and ginger, then beat well until blended. Cool dough 5-10 minutes.

While still warm, for easier handling, roll out dough in sections on cookie sheets. Chill pieces for one hour. Make as many recipes as your pattern requires. One recipe will build the greenhouse described here.

Bake pieces 18-20 minutes. Use an oven preheated to 375°. Remove when edges are lightly browned or center is dry to touch. Small pieces (doors, shutters, landscaping) are likely to cook in as little as 5-8 minutes. If dough bubbles a bit during baking, smooth gently with a spatula after 10 minutes.

Cool each piece on a cookie sheet on wire rack for 5 minutes. Loosen carefully with a spatula, then remove to wire rack to cool completely.



(2)

A design error! The strong sunlight warps the "glazing" of the greenhouse.



#### DECORATOR'S FROSTING CEMENT:

1 egg white  
1/8 tsp. cream of tartar  
1 (16 oz.) pkg. confectioners sugar

In medium bowl with electric mixer at medium speed, beat 1 egg white and cream of tartar until frothy. Beat in sugar, a tablespoon at a time. Then beat until very stiff and mixture does not flow together when cut through with a knife.

#### DECORATOR'S FROSTING SNOW:

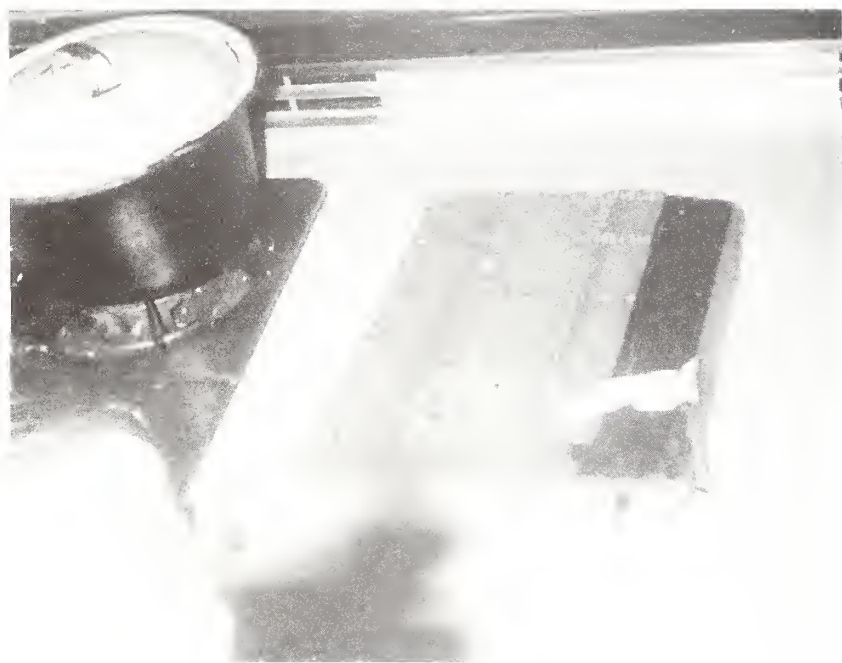
3 egg whites  
1/8 tsp. cream of tartar  
1 and 1/2 (16 oz.) pkg. confectioners sugar

Make as "cement" above.

#### CANDY GLAZING:

3 C sugar  
3/4 C light corn syrup  
3 Tbsp. vinegar  
1/3 C boiling water  
1/4 C butter or margarine  
dash salt

Combine sugar, corn syrup, vinegar, water; stir until sugar dissolves. Cook to hard crack stage (300°). Remove from heat; add butter, salt. Cool till slightly thick, and then pour into prepared trays. Cool thoroughly.



(3)  
Quick repair as the glazing is removed, set on a warm oven top for an overnight meltdown, and replaced on roof. Fortunately, the house could be picked up and moved away from the window!

Update...

FEMINIST UNDERGROUND PUBLICATION:USSR

7-20-80. MOSCOW-- Soviet authorities revoked the citizenship of Tatiana Mamonova, the founder of the USSR's first feminist journal, and expelled her and her family dissident sources and family friends said.

Miss Mamonova, an editor of the underground publication "Women and Russia," was warned less than two weeks ago she faced harsh punishment unless she voluntarily left the Soviet Union.

She refused and on Saturday, KGB agents informed her that she, her husband and their 4-year-old son would have to leave within 24 hours.

"Women And Russia" first appeared in an underground edition of about a dozen typewritten copies. The almanac-style journal--a collection of articles, statements and poems addressing the problems of women in Soviet society--subsequently reached the West and was reprinted in a professionally published edition circulated from Paris.

The journal took a strong position on women's rights in the U.S.S.R., which it assailed as a thoroughly male-dominated society despite the Communist regime's traditional proclamations of complete equality between men and women.

The second edition of "Women And Russia" was published in the spring and sources said a third edition was close to completion when the KGB moved against Miss Mamonova.

"Sixteen year old Irish girl wins prize in Environmental Science"

Sixteen year old Karen Ruddock recieved the top prize of \$3,500 for scientific research at the European Philips Contest for Young Scientists and Inventors being held in Amsterdam this week.

Her subject--the influence of the environment on certain lichens--exemplifies a gradual shift over the 12 years of the contest from physical and technological subjects to biological, chemical and ecological ones--perhaps a reflection of western society's growing concern about the cost of scientific progress.

from the Holland Herald



LETTER  
FROM HOLLAND

Environmentalists and ecologists have been criticized by their enemies (whose arguments are often transparent in their self-serving logic) for everything under the sun: they are elitist backpackers who don't care if the poor have jobs; they are inhuman nuts who put the snail-darter ahead of people; they are unrealistic romantics who believe that the sun, wind, tides, biomass and other forms of renewable energy can and must take the place of non-renewable, fossil fuel and noxious nuclear and synfuel concoctions. What is in fact the actual case? Ecology is that branch of biology that deals with the relations between living organisms and their environment; living organisms include the human animal; the environment includes man-made as well as natural conditions. We are all connected.

With this issue we begin the fourth year of publication of The Creative Woman. A persistent question, since our first issue, has been: is there a distinct woman's viewpoint on the matter at hand? In art, politics, literature, science, the question recurs. In our Spring 1979 issue on Feminist Scholarship: An Intellectual Corrective, Harriet Gross wrote of the implications of androcentric (male-centered) bias in the biological sciences "in terms of formulating questions, evaluating evidence and rendering conclusions" and called the feminist challenge a true revolution which would shift us to a whole new way of thinking about our relationship to the environment.

The mother of the ecology movement, Rachel Carson, wrote in Silent Spring, (1961) "The control of nature is a phrase conceived in arrogance, born of the Neanderthal age of biology and philosophy, when it was supposed that nature exists for the convenience of man."

Anyone who knows Bethe Hagens (who, with Joan Lewis, is guest editor of this issue) knows the incredible amount of energy, imagination, practical wisdom, indignation and humor that she has brought to her many activities on behalf of Appropriate Technology. She brought "Small is beautiful" Schumacher to Illinois. She, along with Jim Laukes, organized an enthralling two-day conference on Alternative Energy Sources, won a government grant to develop greater self-sufficiency among farmers in a small Illinois town by building a community greenhouse and published Acorn and Outlook.

Clearly, the position of those of us who write, edit and publish The Creative Woman is YES, there is a distinct woman's point of view. Perhaps it has something to do with the fact that we are the "biological servants of the species" as Ashley Montagu has (admirably) called us. Those who bear and nurture life with their very bodies provide a precious system of safeguards and warnings. They project themselves, literally, into the future of our species. They instinctively reject war, chemical poisons, nuclear solutions. It may have something to do with the unique experiences that we have had as women. Whatever it is, if it is so, then let us make the most of it.

Women have been conspicuous in the Peace Movement, the Civil Rights and Human Rights Movements and the Ecology Movement. It has even been suggested by Lucille Mair that women may provide the understanding required to redress the gross social and economic imbalances that divide the industrialized Northern hemis-



phere from the impoverished Southern hemisphere. How so? She is quoted in NEWSWEEK( July 14, 1980) as saying "Because the women in many societies in the North are in a subordinate role, they have the capacity to understand, perhaps even more than their menfolk, what the subordination of the South entails. Anyone who has been subjugated has the capacity to identify with the subjugation of others. Who knows, it may be the women of the North who will help the rest of the world understand the position of the South". Lucille Mair is a Jamaican feminist, historian, diplomat and the secretary-general of the United Nations Decade for Women. Her comments will recall for some the role played by Harriet Beecher Stowe and other abolitionist-feminists during and after the Civil War. Others will point out that identification with the victim is not a psychologically healthy basis for reform or renewal. We must go beyond identification with the victim! And yet others will say that it is the height of hubris for women to ascribe to themselves such world-changing revolutionary powers. Let no one accuse us of overweening pride: We have taken to heart the words of the Talmud:

It is not incumbent upon me to  
complete the task;  
Neither am I allowed to refuse  
to do my part of it.

Helen E. Hughes, Editor



#### A Note on the United Nations Decade of Women Conference

As we go to press, I am leaving for Copenhagen to attend the conference, looking forward to an unprecedented opportunity to participate in a gathering of 1500 women from 150 countries. We shall review the world-wide status of women five years after the International Women's Year Conference in Mexico City. For starters, we are more than 51% of the population, do two-thirds of the work, earn one-tenth of the income, and own one percent of the property, according to recently compiled statistics. My impressions will be reported in these pages in the Fall 1980 issue.

HEH



ink drawing  
by Andre Dunoyer de Segonzac  
(French, 1884-1974)  
Titled, "Isadora Duncan", (undated)

The Creative Woman acknowledges the contribution of Rose Kushner to our Spring 1980 issue, WOMEN AND PSYCHOLOGY: ROLES AND AUTHENTICITY. On page 24 we reprinted the cover design of her brochure, "If you've thought about breast cancer". The brochure is available through this toll free number; (800) 638-6694.



---

the  
Essence of  
Life  
is Composting  
your own  
Shit.  
~

---

subscribe

----- ✂  
Make checks payable to The Creative Woman/GSU.

Please send me The Creative Woman for one year. Enclosed is my check or money order for \$\_\_\_\_\_.

\$ 5.00 regular subscription  
\$ 7.00 foreign subscription  
\$10.00+ donation and automatic subscription

Return to: The Creative Woman  
Governors State University  
Park Forest South, IL 60466

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_





Governors State University  
Park Forest South, IL 60466

Nonprofit Org.  
U. S. Postage Paid  
Park Forest South, IL  
Permit #178